A New Taxonomy for Understanding Factors Leading to Suicide in the Military

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Abstract: In the years since 2003, suicides among U.S. military personnel have risen dramatically, and continue to rise despite significant leadership attention to suicide awareness and prevention. Prevention efforts have proven unsuccessful, perhaps because they have focused on associated factors, rather than the underlying more fundamental contributing ones. Current suicide prevention and education programs in the military address the symptoms, while ignoring the underlying problem. This paper presents a new taxonomy for organizing and thinking about the multitude of factors associated with suicide in the military. We distinguish four sets of factors associated with suicide: (1) Formative factors are the long-term, fundamental causative factors in suicide, contributing to alienation and powerlessness; (2) Background factors are associated with suicide, but are not clearly causative, as for example age and sex; (3) Precipitating factors are the near-term causative factors, acute stressful events that can plunge the individual into sudden despair, such as a broken marriage; (4) Enabling factors are those that facilitate the act of suicide, but are not underlying causes. This includes for example alcohol and drugs, and easy access to weapons. To succeed, efforts to prevent suicide in the military should be directed to the formative factors. A model is presented in which military-specific formative factors are shown to contribute to alienation and powerlessness, key factors that can lead to suicide. Drawing from the hardness model of resilience, some recommendations are provided for building up the sense of commitment (vs. alienation) and control (vs. powerlessness) in military personnel as a strategy for reducing suicide. [International Journal of Emergency Mental Health and Human Resilience, 2013, 15(4), pp. 299-306].

Key words: suicide, military, taxonomy, prevention, hardness

Introduction

Suicide in the military is dramatically on the rise. For example, Army active duty suicides nearly doubled in the period from 2005 to 2008, from 12.7 per 100,000 to 20.2 per 100,000 (U.S. Department of the Army, Army Suicide Prevention Program Fact Sheet, 2009). These increases have generated considerable concern and renewed attention to education and prevention efforts in military units. But despite these efforts, military suicides continue to rise (Kuehn, 2009; U.S. Department of Defense, 2009; Escolas, Bartone, Rewers, Rothberg, and Carter, 2010). By 2011, the Army suicide rate had climbed still higher to 22.9 per 100,000 (Department of Defense Suicide Event Report - DODSER). And while the Army shows the highest suicide rates, other services have also seen increases. The overall U.S. military suicide rate has increased from 19.1 in 2008 to a high of 23.5 in 2012.

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All of the military’s suicide prevention programs have thus far failed to stem this rising tide. This should not come as a total surprise, since despite the many theories and research studies on suicide, we still lack a good understanding of what drives people to take their own lives. Without clear knowledge of the basic underlying causes of suicide, prevention programs are not likely to succeed. This is true for non-military organizations as well as military ones.

Need For A Clear Taxonomy Of Suicide Factors

In the search for what causes suicide, a typical strategy is to examine a number of actual suicide cases in order to identify factors or circumstances that are “common denominators” across cases. This approach results in lists of factors associated with the suicides, including strained or broken love relationships, financial problems, and job loss. While this strategy can provide important clues regarding factors linked to suicide, it can also lead to confusion as the list of associated variables grows longer and longer, and there do not seem to be consistent factors that are present in every case. This approach also fails to recognize that not all associated factors are causative, or causative to the same degree.

The present paper offers a simple taxonomy for ordering the multitude of factors associated with suicide in the military. This framework offers a useful aid to understanding suicide by distinguishing among factors that are associated but not causative, causal factors that are near or proximate in nature, and causal factors that appear to be more fundamental or ultimate. In order to prevent or at least reduce suicide, we must address not only the proximate causal factors, but also the ultimate or fundamental ones. The final section of this paper gives some beginning recommendations for how this could be done, drawing on the hardness model of stress resilience.

A careful review of the suicide literature suggests four categories of factors associated with suicide in the military (Figure 1). These are (1) formative factors; (2) background factors; (3) precipitating factors; and (4) enabling factors.

Working backward through the model, enabling factors are not causative per se, but only make it somewhat easier for the individual who has decided to commit suicide to go ahead and perform the act. Enabling factors include such things as easy access to firearms, alcohol consumption, and time of day such as night time when the suicidal person may be less visible to others in the work unit.

Precipitating factors are the proximate causes, in contrast to more fundamental or ultimate ones. Precipitating factors include relationship problems or break-ups, financial problems, disciplinary actions or investigations, job loss (e.g., National Guard or Reserve troops who leave active duty and are unemployed), and other acute stressful life events. These are not fundamental or root causes of suicide; many troops experience these situations and find ways to cope effectively. However, for the military person who is already at-risk for suicide due to more basic or fundamental factors, such precipitating events can be enough to push him or her “over the edge.”

Background factors are those variables that are associated with suicide, that are linked to increased risk for suicide without being specifically causative. This would include demographic variables such as age, sex and race, as well as history of mental health problems and violent or criminal behavior (Griffith, 2012; LeardMann, Powell, Smith, Bell, Smith, Boyko, et al., 2013).

Formative factors are the deeper, more fundamental ones that are the real causes of suicide. Despite some disagreement among suicide experts as to just what these factors are (Sanchez, 2001), multiple studies point to feelings of hopelessness, depression, and social alienation. For example, according to Beck, Kovacs & Weissman (1979), the key common denominator is hopelessness. Beck and colleagues have found that hopelessness is highly predictive of suicidal behavior (e.g., Beck, Brown, Berchick, Stewart, & Steer, 1990). A similar perspective by Schneidman (1996) describes suicide as mainly the result of frustrated or thwarted needs that results in intense psychic pain, or “psychache.” This model is based on the personality theory of Henry Murray (1938), who emphasized the importance of satisfying a range of human needs, from primary biological ones, to secondary psychological ones including the need for affiliation, need for achievement and sense of competence, and the need for autonomy.

Durkheim (1951; originally published 1897) provides a theory of suicide that helps explain how social-contextual factors can lead to increases in suicide. In Durkheim’s view, the most prevalent type of suicide, which he labeled egoistical, is more common when people feel disconnected or separated from their relevant social groups. This social isolation contributes to feelings of lonely desperation, and
Figure 1. Taxonomy of factors that can lead to suicide in the military

**Formative - causative factors:**
- Pre-existing vulnerability (low hardiness)
- Heavy workload, insufficient sleep / rest
- Long, frequent deployments
- Isolation
- Social disintegration – low cohesion
- Powerlessness
- Depression
- Hopelessness – no end in sight
- Lack of trust in senior leaders
- Moral conflicts
  - Duty to army, or duty to family?
- Corruption
- Double standards
- Loyalty to friends vs report violations?

**Background factors:**
- Sex (male)
- Age (young)
- Race (white)
- History of violence, criminal behavior
- History of mental health problems

**Precipitating factors:**
- Relationship problems
- Money problems
- Job loss
- Other life stressors

**Enabling factors:**
- Easy access to weapons
- Alcohol
- Drugs
- Time of day? (night)
- Solitude
- Sleep deprivation

**Suicide**

subsequently increased rates of suicide. Durkheim also observed that suicide rates go up whenever the normal regulatory functions of society are loosened or absent, as for example during times of economic turbulence or dramatic social change. Many people feel lost and without social guideposts under such conditions, leading to increased rates of what Durkheim called anomic suicide.

Relating Durkheim’s theory to the military context, military personnel who are socially isolated from their units, or are not well-integrated (low unit cohesion), may be at increased risk for egotistical suicide. Also, to the extent that the deployed / wartime environment is a turbulent one in which things are changing quickly and normal rules do not apply, troops may also be at higher risk for anomic suicide. Durkheim’s perspective is valuable in pointing to social factors in the military environment that may set the conditions for increased suicide risk.

A more recent theory of suicide by Joiner (2005) incorporates aspects of earlier theories, while adding some important new elements. Joiner claims there are three essential factors underlying suicide: (1) the acquired capacity for lethal self injury, which comes with practice and involves desensitization to pain and fear of death; (2) thwarted effectiveness, which also increases the sense of being a burden on others; and (3) thwarted belongingness, feeling disconnected or alienated from social groups. Thwarted effectiveness refers to the growing sense that one is lacking competence, is powerless to get things done, and is a failure. Thwarted belongingness involves the perception of being isolated, and not a part of the social world. Joiner cites multiple studies that lend support his theory (Joiner, 2005).

Potentially important for understanding suicide in occupations like the military and law enforcement, Joiner claims that the acquired capacity for lethal self-injury can come about indirectly, through repeated exposure to violence and death in the surrounding environment (Joiner, 2005).
Military personnel may be exposed to extensive and repeated violence in combat operations, and even those not exposed to combat are trained to perform in combat operations. This exposes them to deadly weapons, which they are trained to use on enemy forces when necessary. It is much the same for police, who are also commonly exposed to violence and death, and are trained to cope with a range of dangerous situations (Violanti, 2007). Placing this issue in the current taxonomy, repeated exposure to violence could be seen as both a precipitating factor, and as a formative factor contributing to suicide. Joiner also finds that a history of mental health problems and previous self-destructive behavior are both associated with suicide.

Applying these key theoretical perspectives to the military context leads to the working list of “formative factors” found in Figure 1. Pre-existing vulnerability represents individual differences in the inherent psychological resilience or mental resources of people, differences attributable to a range of background influences. Long and frequent deployments impose multiple severe stressors on troops, and even those who do not deploy experience long hours, heavy workloads, and insufficient sleep. Another fundamental factor that can operate in the lives of military personnel is social isolation, sometimes characterized as low integration or cohesion with respect to the military unit. This is a bigger problem during turbulent periods when the fast pace of operations reduces the opportunities for soldiers to train together prior to deployment.

A sense of hopelessness can grow as a result of lengthy, repeated deployments, ambiguous missions and little apparent progress or mission success (Bartone, Barry and Armstrong, 2009). This is exacerbated by a feeling of powerlessness, or inability to fix things or get things done. Moral conflicts that appear to be unsolvable, such as the conflict between one’s duty to the unit and mission on the one hand, and the obligation to care for one’s family on the other, can also increase the feeling of anomie and hopelessness, thus raising the risk for suicide.

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**Figure 2.**
Breakdown of formative and background factors contributing to alienation, powerlessness and suicide in the military

**Policy**
- Unclear, changing mission
- Inadequate troop strength
- Long deployment cycles
- High OPTEMPO

**Mission ambiguity**
- Nature of mission?
- War, COIN, nation building?
- Is mission legitimate, just?
- Who is the “enemy”?
- Unclear chain-of-command
- How do people see us?
- What is “victory”?

**Social isolation**
- Isolated
- Low unit cohesion
- No support from bosses, peers, or agency
- Stigma against seeking help
- Long tours break down family & community ties

**Values conflicts**
- (Moral dilemmas)
- Are we good or evil?
- Duty to Army, vs. duty to family
- Is this a just war?
- Must I kill, or be killed?
- Do I risk killing civilians?
- Report violations?

**Suicide**
- Homicide
- Family violence
- Drug, alcohol abuse

**Precipitators:**
- Marital problems
- Financial problems
- Failure, loss

**Enablers:**
- Weapons
- Alcohol, drugs
- Time of day (night)
- Sleep deprived
Figure 2 provides a more detailed display of the range of formative factors, and suggests that they converge to create a dangerous sense of alienation and powerlessness. Alienation here involves not only social isolation or alienation from others, but also alienation from one’s work and life activities (Joiner’s “thwarted effectiveness”), and alienation from self, or loss of a sense of self-worth. Some background factors are included in the chart, since they also can add to alienation and suicide, and are affected by selection policies.

This global sense of alienation has been characterized by Maddi (1967) as the existential sickness. The severely alienated person sees life as meaningless, is isolated and uninterested in other people, finds most activities boring, and doubts his/her own worth. As a component of the hardy personality style described by Kobasa (1979), alienation is the opposite of commitment, and involves alienation from the social world, alienation from the physical world of work and activities, and alienation from oneself (lack of self-worth and sense of competence). Alienation from the social world corresponds to Joiner’s (2005) thwarted belongingness, and alienation from self overlaps somewhat with his thwarted effectiveness, or sense of value as a person who can get things done. But Joiner’s thwarted effectiveness corresponds more closely with another component of hardiness, that is control (or powerlessness). Low hardy people who are low in the sense of control generally feel powerless to get things done, or to act effectively to solve problems. So, as posited by the model in Figure 2, a range of stressful conditions can lead to increased alienation and powerlessness in military personnel. When combined with precipitating factors like a broken relationship, and enabling factors like alcohol or a loaded gun, suicide may be the result.

Figure 3 below shows how various of these formative factors might be addressed with programs, policies, and leader actions that counter alienation and powerlessness, building up the sense of commitment and control that make up psychological “hardiness.”

**Figure 3.**
Countermeasures to reduce alienation and powerlessness, build hardiness, and prevent suicide

**Policy**
- Clear mission definition
- Sufficient troop strength
- Sensible deployment cycles
- Reduced OPTEMPO

**Mission clarity**
- Senior leaders are clear on strategy & goals
- Front line leaders interpret, define achievable tasks and goals
- Clear chain-of-command

**Individual**
- Rigorous selection standards
- Education & moral character
- Hardiness-stress resilience
- Training for hardiness & healthy coping skills
- Exercise, hobbies

**Social Connections & Control**
- Cohesion - Social integration
- Leaders who listen
- Communication with family
- Support from bosses, peers
- Chaplains, mental health support
- Reduced stigma
- Rituals

**Values consonance**
- (Moral consistency)
- Clear mission & charter
- 6-month deployments max
- Training & Standards
- Fairness
- Leaders are honest & share hardships
- Rewards

**Commitment Control**

**Hardiness**
- Sustained health & performance
Implications For Policy And Leader Actions To Prevent Suicide

Current U.S. military efforts to reduce or prevent suicide are focusing primarily on enabling factors and to a lesser degree precipitating factors, perhaps because that is where attention is more easily directed, and/or because these are factors that appear to be within the influence of leaders. For example, recent Army suicide prevention training emphasizes buddy care and small unit leader awareness of troops who may be showing signs of depression, and then making sure that those troops are referred for mental health care. One of the limitations of this approach is that individuals at-risk for suicide may not show any outward signs of distress...the problem can be hidden until it’s too late. Another is that even when appropriate mental health referrals are made, treatment can be ineffective. In order to definitively address the military suicide problem, senior leaders will have to somehow confront the basic, formative factors. This can be done, but it requires a long-term commitment and policy changes that are likely to be resisted by some parts of the organization.

Specific Recommendations

- Apply existing knowledge regarding pre-disposing or vulnerability factors (history of mental health problems, history of misconduct) to design more rigorous selection standards for entry into service, and also for assignment to units, missions and deployments. Screen out those with obvious problems. While some of these may be hidden, good screening tools and methods are available which could be more diligently applied to select out highly vulnerable individuals, either from entry to service, or perhaps from participating in certain missions or deployments. Military applicants with a history of serious mental health problems should be excluded from service.

- Review current policies for identifying and releasing from service those soldiers, sailors, airmen, marines who are not adjusting well to the military occupation. Manpower requirements should not be allowed to force acceptance and retention of individuals lacking basic skills and capabilities to adapt to the military environment. While these recommendations may be difficult to implement given existing force structure and operational requirements, the result would be substantially fewer troops exhibiting suicidal thinking and committing suicide, and a more resilient and effective fighting force.

- Restrict deployment duration to no more than six or seven months. Twelve to eighteen month deployments place qualitatively greater demands on military personnel and their families, and are unsustainable. Coalition partners of the U.S., as well as the U.S. Marine Corps, Navy, and Air Force have all kept deployments mostly to 7 months or less. Experience and research shows that a range of mental health and adjustment problems increase substantially for troops on deployments greater than 6 or 7 months (e.g. Shen, Arkes, Kwan, Tan, & Williams, 2010). Exceptions can be made for individuals who voluntarily agree to deploy for longer periods; those who volunteer are not at as high risk as those who are involuntarily deployed for more extended periods.

- Rationalize personnel, manpower, unit and individual rotation policies such that individuals are not deployed repeatedly without sufficient time at home station (dwell time), and so that units have time to train together and build-up unit cohesion prior to deployment. Dwell time should be at least 2 x’s deployment time.

- Incorporate new training into the Joint Professional Military Education system (JPME) to educate military leaders as to the importance of psychological health and resilience in the force, and actions that leaders can take to increase resilience before, during and after missions. Leader actions include:

  - Leaders should engage in frequent and effective communication to clarify mission, rules of engagement, and standards of conduct. This mitigates against the sense of anomic and powerlessness that can grow during military operations.

  - Leaders should remind troops of the importance and significance of what they are doing. This increases the belief in the meaningfulness of the mission and convinces them that their sacrifices are worthwhile.

  - During periods of "down-time" on deployments when mission demands are reduced, leaders should find projects and tasks for troops to work on that build or maintain skills and result in tangible worthwhile products. Depending on circumstances, this could include public works projects, medical or educational
support to locals or other personnel in the deployed environment, or distance learning opportunities for the troops. Such activities build an increased sense of commitment and meaningfulness, while also providing a degree of control over the environment, thereby reducing the suicide formative risk factors of existential boredom, alienation and powerlessness.

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